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ABSTRACT

This bulletin is one in a series of environmental education activity guides for grades K-12, developed and field-tested by teachers in the Montgomery County (Maryland) Public Schools. Primarily for use in the middle grades four through six, the guides are not intended to constitute complete units in themselves. They are, rather, a compilation of activities considered appropriate for particular environmental studies. In this guide about wildlife, for grades four through six, are activities entitled: Stalking, Finding Signs of Wildlife, Making Casts, Identifying Small Animal Tracks, Identifying Animals from Signs, Constructing an Animal Trap, and Identifying Animals from Tracks. Each activity indicates the instructional objective, procedures to follow, and materials required. Teacher notes are added when necessary. A student evaluation sheet concludes the bulletin. Related documents in the series are SE 015 885 and SE 015 887 through SE 015 893. (BL)

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Activities for Studying

Wildlife

MONTGOMERY COUNTY PUBLIC SCHOOLS · ROCKVILLE, MARYLAND · Homer O. Elsenood · Superintendent of Schools

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ENVIRONMENTAL EDUCATION SERIES
ACTIVITIES FOR STUDYING WILDLIFE
GRADE LEVEL 4 – 6

Bulletin No. 247-B

Montgomery County Public Schools
Rockville, Maryland
Homer O. Elseroad
Superintendent of Schools

INTRODUCTION

For some time, there has been a need for curriculum materials to assist teachers who wish to move the teaching/learning experience beyond the school walls. Although individual schools have prepared materials useful to their own unique purposes, such information and teaching aids have not generally been shared with other schools.

This series of bulletins on Environmental Education was developed after arrangements were made in Area 11 for approximately a dozen 12-month teachers to produce outdoor education materials during the summer of 1969. Field testing of these materials occurred, primarily in Area 11, during the 1969-70 school year.

In the summer of 1970, an Outdoor Education Curriculum Development Workshop was conducted at Randolph Junior High School, during which twelve teachers developed additional materials and reviewed and tested those prepared earlier.

The bulletins in this Environmental Education series are not intended to constitute complete units in themselves. They are, rather, a compilation of activities considered appropriate for particular environmental studies. Whether the series should be used separately or as a supplement to other aids should be determined by the needs and purposes of each teacher and his students.

A word of explanation about format: Each activity suggested has its own stated instructional objective. The achievement of that objective will be an individual experience for each student, even though in some cases the procedures suggested may be group- rather than individually-directed.

PURPOSE

The purpose of this project is to provide students with experiences related to wildlife that can be meaningfully taught in the outdoors.

One aspect of outdoor education is the study of animals in their natural habitats. Although wildlife is seldom seen by the causal observer, students can be made more aware of the presence of animals by the evidence or traces they leave. Through direct experience, students can become more observant and, therefore, more aware of the interdependency of animals and their environment.

TABLE OF CONTENTS

Introduction iii

Purpose iii

Activities:

1. Stalking 1
2. Finding Signs of Wildlife 2
3. Making Casts 3
4. Identifying Small Animal Tracks 4
5. Identifying Animals from Signs 5
6. Constructing an Animal Trap 6
7. Identifying Animals from Tracks 7

Student Evaluation Sheet 9

Activity 1: Stalking

Instructional Objective:

The student will be able to move from place to place in the woods without being observed, while at the same time observing what is going on (i.e., stalking).

Procedures:

1. Have students practice stalking after becoming aware of the following ways to reduce their conspicuousness in the woods:

    a) Take advantage of the lay of the land and of plant and tree cover.

    b) Take advantage of shade and shadows. Avoid exposure to sunlight as much as possible.

    c) Walk through the woods making as little noise as possible and with as little movement as possible; e.g., arm and head movements.

    d) Pay particular attention to sounds.

    e) Look *through* trees and bushes rather than *at* them.

    f) Move slowly.

    g) Keep eyes moving up and down, left and right, with as little head movement as possible.

    h) Practice freezing (holding a fixed position for a period of time).

    i) Beware of snakes and poisonous plants, especially when you are crawling on the ground.

2. Relate stalking ability to increased chances for observing wildlife in the woods.

Materials:

notebook, pencil

Note:

For practice in stalking, a game may be played in which one or several students try to approach their classmates without being observed. A point system may be worked out; e.g., the stalker gets so many points for observing his classmates within certain distances without being observed by them. Students should keep careful records of their observations of what the group is doing while being stalked.

Activity 2: Finding Signs of Wildlife

Instructional Objective:

Each student will be able to find signs of wildlife in the area.

Procedures:

1. Look for evidence of wildlife; e.g., vegetation which has been eaten, droppings, tracks, homes, nests, trails, etc. Record this data.

2. Use stalking skills by actually stalking animals in their natural habitats.

3. Sit quietly near a game trail early in the morning and at dusk. Observe and record any animal life or movement evident.

4. Construct a blind, using natural cover. Sit in the blind and observe and record any animal or movement.

5. Find some animal tracks. Plot them on a sketch map of the area.

Materials:

film, notebook, pencil

Activity 3: Making Casts

Instructional Objective:

Each student will be able to make a plaster of Paris cast of wildlife tracks.

Procedures:

1. Making a Negative Cast

   a) Locate an animal track in soft ground. (See Activity 4)

   b) Clear away any debris carefully.

   c) Make a collar of cardboard large enough to enclose the track, allowing about ½ inch extra around the track.

   d) Fasten the collar with a paper clip, and insert it into the ground about ¼ inch.

   e) Mix about 3 cups of plaster of Paris with about 2 cups of water in a coffee can, adding the *plaster to the water.* Mix this well until it reaches the consistency of soft ice cream.

   f) Pour the mixture into the track and up to the top of the collar.

   g) Let stand about 20 minutes or until the plaster has set.

   h) Remove the plaster cast, and brush off any residues. You now have a negative cast.

Materials:

plaster of Paris
coffee cans
cardboard strips 6 – 8 inches long x 1 – 2 inches high
paper clips
water
wire
black poster paint

2. Making a Positive Cast

   a) Cover the negative cast with vaseline.

   b) Make another collar from cardboard, fitting it snugly, and fasten it with a paper clip.

   c) Follow the same procedure as before with the plaster of Paris. (This time, if desired, you may insert a wire in the wet plaster to hang your cast.)

   d) Again wait 20 minutes or until the plaster is set.

   e) Remove the collar and separate the two casts.

   f) You may wish to paint the track. Black poster paint is recommended for this.

Activity 4: Identifying Small Animal Tracks

Instructional Objective:

Each student will be able to collect and identify tracks of small animals.

Procedures:

1. Select an area 6x8 feet.
2. Rake off all cover and loosen the soil.
3. Wet it down and rake as evenly as possible.
4. Place some bait such as fruit or meat in the center.
5. Visit the area in the early morning. Observe what tracks are there, and attempt to identify them using a guide such as those listed below.

Materials:

rake, water, plaster of Paris, coffee cans, cardboard strips, paper clips

Note:

For identification purposes, children may refer to any good track identification books such as:

Saeger, Ellsworth. *Tracks and Trailcraft.*
Murie, Olans. *Field Guide to Animal Tracks.*
Chase, Myron & Charles. *Field Guide to Tracks.*
Peterson, Roger Tory. *Field Guide to Animal Tracks.*

Activity 5: Identifying Animals from Signs

Instructional Objective:

Each student will be able to identify three animals by their signs.

Procedures:

1. The student will find at least three of the six things listed below in the natural environment.

    a) Actual animal

    b) Animal homes (nests, dens, burrows, beds)

    c) Sounds (movement, food gathering, calls)

    d) Tracks or trails

    e) Droppings

    f) Odors

2. The student will record what was found and where it was found; and after each item, he will list the animal(s) he thinks is responsible for each sign.

3. He will use a resource person or a reference book to verify his guess.

Materials:

paper
pencil
reference books

Activity 6: Constructing an Animal Trap

Instructional Objective:

Each student will be able to describe how to construct a small animal trap to try to sample the animal population.

Procedures:

The student will –

1. Dig a hole about 20 inches deep.
2. Insert a standard 8 inch stove pipe section about 18 inches long.
3. Fill in around the outside of the pipe and level the ground around the stove pipe.
4. Place some bait such as meat or fruit in the trap.
5. Examine the trap in the morning. Place a piece of mesh wire over the trap before inspecting. (This is to assure the student protection.)
6. Note what the animal is, then lower a stick into the trap to enable the animal to escape.
7. Remove the stove pipe and fill the hole after use.

Materials:

shovel, stove pipe, bait (may be fruit, meat, or other substance)

Activity 7: Identifying Animals from Tracks

Instructional Objective:

Each child will be able to identify the type of animal and its direction of travel from its track.

Procedures:

The student will –

1. Observe the tracks of a dog, the tracks of a cat, and compare the two. (Notice which one shows claw marks.)

2. Locate some wildlife tracks. Using a guide, identify each. Notice particular claw marks, tail marks, number of toes on fore feet and hind feet.

3. Determine the direction of travel of the animal by referring to the track and a guide book. (The claws are located in the front and indicate the direction of travel.)

4. Make a sketch of the track, and label it with the identification as found in the guide.

Materials:

Animal track identification chart or books listed at the end of Activity 4

STUDENT EVALUATION SHEET

Student's Name_____

		Observed	Not Observed
1.	Demonstrates stalking skill	_____	_____
2.	Identifies signs of wildlife	_____	_____
3.	Demonstrates cast of track	_____	_____
4.	Identifies small animal tracks	_____	_____
5.	Identifies animals from signs	_____	_____
6.	Demonstrates or describes construction of animal trap	_____	_____
7.	Identifies animals from tracks	_____	_____